

## **Abstract**

**Title:** Comparison of body composition and lifestyle tennis players and student of secondary school.

**Objectives:** The main objective of this work is to investigate the link between body composition and the amount and form of physical activity, diet and leisure time in adolescent girls. Further characterization of selected indicators of body composition in female players, who regularly undergo intense training load with girls without regular physical activity. Then evaluate their overall lifestyle.

**Methods:** To obtain data for the assessment of body composition was used bioimpedance analysis, we used monofrequency device BODYSTAT 1500 MDD with the regression equation for the monitored age group. The amount of physical activity, diet and leisure time was obtained by written inquiries using a modified questionnaire 6th CAV 2001 for children and youth added with 4 custom questions related to lifestyle.

**Results:** The result of this work is the finding that regular physical training in the amount of at least 10 hours per week leads to a reduction in body fat and at the same time to increase the amount of lean mass. Furthermore, according to the results we can conclude that the amount of body fat does not only depend on the volume and intensity of training, but are also crucial dietary habits of adolescent girls. The results showed that adolescent girls are interested in a healthy lifestyle and related physical activity, but grammar school students were found insufficient physical activity during the week. Between girls from grammar school and girls tennis players we did not notice a significant difference in diet and leisure time.

**Keywords:** body composition, bioelectrical impedance analysis, physical activity, lifestyle, nutrition, tennis